#### **Board Administration and Regulatory Coordination Unit**

#### **Division 3. Air Resources Board**

# Chapter 9. Off-Road Vehicles and Engines Pollution Control Devices

## Article 4.7. Spark-Ignition Marine Engines

## § 2444. In-Use Compliance Testing and Recall Regulations -- Model Year 2001 and Later Spark-Ignition Marine Engines.

- (a) Applicability. This section applies to model year 2001 and later spark-ignition marine engines, which have been certified to the applicable emission standards pursuant to Health and Safety Code section 43013.
  - (b) Manufacturer In-Use Compliance Test Procedures.
- (1) For the purposes of this section, the Air Resources Board will accept emission data collected from the in-use testing program implemented by the United States Environmental Protection Agency as specified in Title 40, Code of Federal Regulations, section 91.803 [October 4, 1996], which is incorporated herein by reference.
- (2) The Executive Officer, may, upon notice to the engine manufacturer and after review of the engine families identified by the United States Environmental Protection Agency for federal in-use testing, prescribe that a California-specific in-use testing program be conducted pursuant to paragraph (b)(3) at the engine manufacturer's expense if:
- (A) The results obtained from the federal in-use test program pursuant to paragraphs (b)(1) of this section are determined not to be representative of engines sold and operated in California; or,
  - (B) The necessity is supported by other data or information (e.g., California-only engine families).
  - (3) California In-Use Testing Program
- (A) The Executive Officer shall identify engine families and those configurations within families offered for sale in California that the engine manufacturer must then subject to in-use testing for the specified model year. The number of engine families identified shall not exceed 25 percent of the engine manufacturer's families offered for sale in California. The Executive Officer may allow for reduced testing upon the engine manufacturer's demonstration of consistent compliance with the applicable emission standards.
- (B) Number of Engines to be Tested. The number of engines to be tested by an engine manufacturer must be determined by the following method:
- (i) A minimum of two (2) engines per family provided that no engine fails any standard. For each failing engine, two (2) more engines must be tested until the total number equals ten.
- (ii) For engine families of less than 50 engines (California sales) for the identified model year or for engine manufacturers who make less than or equal to 200 engines (California sales) for that model year, a minimum of one engine per family provided that this engine does not fail any standard. If this engine fails, two (2) more engines shall be tested. For each additional engine failure, the engine manufacturer must continue testing two (2) additional engines until the total number equals eleven.
- (iii) If an engine family was certified using carryover emission data and has been previously tested under paragraph (b)(3)(B) without an ordered recall, then only one engine for that family must be tested. If this engine fails any standard, testing must be conducted as outlined in paragraphs (b)(3)(B), as applicable.
- (C) At the discretion of the Executive Officer, an engine manufacturer may test more engines than the minimums described in paragraph (b)(3)(B) or may concede failure before testing a total of ten engines.
- (D) The Executive Officer will consider failure rates, average emission levels and the existence of any defects among other factors in determining whether to pursue remedial action under this subsection. The Executive Officer may request an ordered recall pursuant to paragraph (e)(2)
  - (E) The Executive Officer may approve an alternative to engine manufacturer in-use testing where:
  - (i) engine family production in California is less than or equal to 20 per year; or
- (ii) engines cannot be obtained for testing because they are used substantially in watercraft that are not conducive to engine removal such as large watercraft where the engine cannot be removed without dismantling either the engine or the watercraft; or
- (iii) other compelling circumstances associated with the structure of the industry and uniqueness of sparkignition marine engine applications. Such alternatives shall be designed to determine whether the engine family is in compliance in-use.
- (F) Collection of In-Use Engines. The engine manufacturer shall procure in-use engines that have been operated between half and three-quarters of the engine's useful life. For purposes of paragraph (b) only, "useful life" means ten (10) years or 350 hours of operation for outboard engines and five (5) years or 350 hours of operation for personal watercraft engines. The engine manufacturer may test engines from more than one model year in a given year. The engine manufacturer shall begin testing within twelve (12) months after receiving notice that the

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Executive Officer has identified a particular engine family for testing and shall complete testing within twelve months from the start of such testing. Test engines may be procured from sources associated with the engine manufacturer (i.e., manufacturer-established fleet engines, etc.) or from sources not associated with the engine manufacturer (i.e., consumer-owned engines, independently-owned fleet engines, etc.).

- (G) Maintenance, Procurement and Testing of In-Use Engines.
- (i) A test engine must have a maintenance and use history representative of actual in-use conditions.
- (a) The engine manufacturer must obtain information from the end users regarding the accumulated usage, maintenance, operating conditions and storage of the test engines.
- (b) Documents used in the procurement process must be maintained as required by section 30 of the Test Procedures.
- (ii) The engine manufacturer may perform minimal "set-to-specification" maintenance on components of a test engine that are not subject to parameter adjustment. Maintenance may include only that which is listed in the owner's manual for engines with the amount of service and age of the acquired test engine. Documentation shall be maintained and retained as required by section 30 of the Test Procedures.
- (iii) At least one valid emission test, performed according to the test procedures outlined in Part IV of the Test Procedures is required for each in-use engine.
- (iv) The Executive Officer may waive portions or requirements of the test procedures, if any, that are not necessary to determine in-use compliance.
- (v) If a selected in-use engine fails to comply with any applicable emission standard, the engine manufacturer must determine the reason for noncompliance. The engine manufacturer must report all such reasons of noncompliance within fifteen days of completion of testing.
  - (c) Reports and Evaluation
- (1) The engine manufacturer must maintain and submit sufficient records to the Executive Officer within three months of completing testing from the in-use program. These records must include, but need not be limited to, the following for each test engine:
  - (A) Engine family.
  - (B) Engine model.
  - (C) Engine identification (or serial) number.
  - (D) Date of manufacture.
  - (E) Estimated hours of use.
  - (F) Date and time of each test attempt.
  - (G) Results (if any) of each test attempt.
  - (H) Results of all emission testing.
  - (I) Summary of all maintenance and/or adjustments performed.
  - (J) Summary of all modifications and/or repairs.
  - (K) Determinations of noncompliance and probable causes of failure.
  - (L) Description of operating and storage conditions.
- (2) If the results of the in-use emission tests indicate that the average emissions of the test engines for any regulated pollutant exceed the applicable emission standards specified in Title 13, California Code of Regulations, section 2442, the entire engine population so represented shall be deemed to exceed the standards. The Executive Officer shall notify the engine manufacturer of the test results and upon receipt of the notification, the engine manufacturer has 45 days to submit a plan to make up all excess emissions resulting from in-use testing non-compliance in accordance with paragraph (c)(3). If excess emissions cannot be made up in accordance with paragraph (c)(3), the engine manufacturer must implement a voluntary recall plan in accordance with the applicable portions of paragraphs (d) and (e). If no excess emissions cannot be made up in accordance with paragraph (c)(3) and the engine manufacturer does not implement a voluntary recall plan, the Executive Officer may prescribe the implementation of an ordered recall pursuant to the applicable portions of paragraph (e)(2).
- (3) All excess emissions resulting from in-use noncompliance with the California standard must be made up in the model year following the model year in which the notification of noncompliance is received. In-use noncompliance may not be remedied through implementation of the federal in-use credit program described in Title 40, Code of Federal Regulations, Part 91, Subpart N [October 4, 1996]. As an alternative to recall and with prior

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approval from the Executive Officer, the engine manufacturer may make up the excess emissions by any one or combination of the following options:

- (A) Recertification of the noncompliant engine family to a lower emission level (or higher FEL) that makes up for the noncompliance, while maintaining compliance on a corporate average basis;
  - (B) Implementation of a running change and/or field fix on the noncompliant engine family;
- (C) Implementation of market-based incentives, to be approved by the Executive Officer, to make up the noncompliance; or
- (D) Payment of a noncompliance penalty to be determined by the Executive Officer on a per engine basis as provided by Part 5, Division 26 of the Health and Safety Code.
  - (d) Voluntary Emission Recalls
- (1) When an engine manufacturer initiates a voluntary emission recall campaign, the Executive Officer shall be notified of the recall at least thirty (30) days before owner notification is to begin. The engine manufacturer shall also submit a voluntary recall plan for approval, as described in paragraph (e) below. A voluntary recall plan shall be deemed approved by the Executive officer within thirty (30) days after receipt of the recall plan unless objected to in the interim.
- (2)(A) When any engine manufacturer, based on enforcement test results or any other information provided to or required by the ARB, proposes to initiate a voluntary emission recall program, the engine manufacturer shall submit for approval by the Executive Officer an emission recall plan as described in paragraph (e) below. The plan shall be submitted within 45 days following the receipt of a notification from the ARB that enforcement test results or other information demonstrate an engine noncompliance.
- (B) The Executive Officer shall approve the recall plan in writing if it contains the information specified in paragraph (e) where specified and is designed to notify the engine/watercraft owner and correct the noncompliance in an expeditious manner. Notification of engine/watercraft owners and the implementation of recall repairs shall commence no later than the schedule specified under paragraph (e)(1)(C) and (e)(1)(D), respectively, unless the engine manufacturer can show good cause for the Executive Officer to extend the deadline. If the plan does not contain the provisions of paragraph (e), the Executive Officer shall disapprove the plan in writing and require revisions where deemed necessary. The engine manufacturer may contest such a disapproval by requesting a hearing pursuant to Subchapter 1.25, Title 17, California Code of Regulations. If no request for a hearing is made or the hearing upholds the disapproval, the engine manufacturer shall incorporate all requested revisions to the plan and begin implementation of the recall plan within sixty (60) days of receipt of the disapproval.
- (C) The engine manufacturer may also request a public hearing pursuant to the procedures set forth in Subchapter 1.25, Title 17, California Code of Regulations to contest the finding of nonconformity and the need for an ordered recall. If such a hearing occurs and the nonconformity is confirmed therefrom, the engine manufacturer shall submit the recall plan required by paragraph (e)(2) within thirty (30) days after receipt of the Board's decision unless an extension is granted by the Executive Officer.
  - (e) Voluntary and Ordered Recall Plans
- (1) The recall plan for voluntary and ordered recalls must be submitted to the Executive Officer for review and must contain the following information unless otherwise specified:
- (A) A description of each class or category of engines recalled, including the number of engines to be recalled, the model year, and such other information as may be required to identify the engines recalled;
- (B) A description of the specific modifications, alterations, repairs, corrections, adjustments or other changes to be made to correct the engines affected by the emission-related defect;
  - (C) A description of the method by which the engine manufacturer will notify engine/watercraft owners;
- (D) A description of the procedure to be followed by engine/watercraft owners to obtain correction of the nonconformity. This may include the date on or after which the engine/watercraft owner can have the nonconformity corrected, the time reasonably necessary to perform the labor to correct the nonconformity and the designation of facilities at which the nonconformity can be remedied;
- (E) A description of the class of persons other than dealers and authorized warranty agents of the engine manufacturer who will remedy the defect;
- (F) A description of the system by which the engine manufacturer will assure that an adequate supply of parts is available to perform the repair under the plan, including the date by which an adequate supply of parts will be

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available to initiate the repair campaign, and the method to be used to assure the supply remains both adequate and responsive to engine/watercraft owner demand.

- (G) A copy of the letter of notification to be sent to engine/watercraft owners;
- (H) A copy of all necessary instructions to be sent to those persons who are to perform the repair;
- (2) For an ordered recall, the recall plan shall include the information required for voluntary recall plans as specified in paragraphs (e)(1). Additionally, it shall include the following:
- (A) A plan describing how the maximum feasible capture rate will be achieved for recalls based on either the exceedance of emission standard or on the failure of an emission-related component.
- (B) The plan shall also include a schedule for implementing actions to be taken including identified increments of progress towards implementation and deadlines for completion of each increment. If, after good faith efforts, the engine manufacturer cannot reach the maximum feasible capture rate by the applicable deadline, the engine manufacturer must propose mitigation efforts to be approved by the Executive Officer that will offset the emissions of the unrepaired engines.
- (3) The engine manufacturer must not condition repair of the noncomplying engine/watercraft on the proper maintenance or use of the engine except for compelling reasons approved by the Executive Officer. The engine manufacturer, however, is not obligated to repair a component which has been removed or modified.
  - (4) Record keeping and Reporting Requirements.
- (A) The engine manufacturer shall report on the progress of the voluntary or ordered recall program by submitting a report one year from the date owner notification begins and a final report an additional year later. Such reports shall be submitted to the Chief, Mobile Source Operations Division, P.O. Box 8001, 9528 Telstar Avenue, El Monte, CA 91734-8001. For each class of engine subject to the recall program, the yearly report shall contain:
  - (i) Engine family and emission recall campaign number designated by the engine manufacturer.
  - (ii) Date engine/watercraft owner notification was begun, and date completed.
  - (iii) Number of engines involved in the voluntary or ordered recall campaign.
- (iv) Number of engines known or estimated to be affected by the nonconformity and an explanation of how this number was determined.
  - (v) Number of engines inspected pursuant to the voluntary or ordered recall plan.
  - (vi) Number of inspected engines found to be affected by the nonconformity.
- (vii) Number of engines receiving repair under the recall plan and a listing of these engines' engine identification numbers.
  - (viii) Number of engines determined to be ineligible for recall action due to removed or modified parts.
- (ix) A copy of any service bulletins transmitted to dealers or other authorized repair facilities which pertain to the nonconformity to be corrected and that have not previously been reported.
- (x) A copy of all communications transmitted to engine/watercraft owners that relate to the nonconformity and that have not previously been submitted.
- (B) If the engine manufacturer determines that any of the information submitted pursuant to paragraph (5)(A) above has changed or was incorrect, revised information and an explanation must be submitted. Responses to subsections (5)(A)(v),(vii),(viii) and (ix) above shall be cumulative totals.
  - (C) The engine manufacturer shall maintain the names and addresses of engine/watercraft owners:
  - (i) To whom notification was given;
  - (ii) Whose engines were repaired or inspected under the recall plan; and
  - (iii) Whose engines were determined not to qualify for repair due to removed or modified components.
- (D) All reports shall be maintained for not less than one year beyond the useful life of the engines and shall be made available to authorized personnel of the ARB upon request.
- (f) Penalties. Under an ordered recall, failure of the engine manufacturer to notify the engine/watercraft owners and repair the engines in the manner specified in the recall plan constitutes a violation of Health and Safety Code section 43105 and subjects the engine manufacturer to penalties pursuant to Part 5, Division 26 of the Health and Safety Code.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43102 and 43104, Health and Safety Code. Reference: Sections 43013, 43017, 43018, 43101, 43102, 43104, 43105, 43150-43154, 43205.5 and 43210-43212, Health and Safety Code.